Active Project (2015 - 2018)

Intelligent Landing System (ILS) Project

Game Changing Development Program | Space Technology Mission Directorate (STMD)

ANTICIPATED BENEFITS

To NASA funded missions:

This technology is required by the current Europa Lander baseline mission. The benefits of the technology include ~50 m landing precision and integrated hazard avoidance. These technology allow a lander to autonomously land on Europa with an extreme and uncertain terrain.

DETAILED DESCRIPTION

Develop Intelligent Landing System (ILS) (Terrain Relative Navigation and Hazard Detection) that enables safe landing of the Europa Lander Mission: TRN enables landing near science sites identified from orbit (50m accuracy), TRN Enables avoidance of large known hazards (e.g., cliffs), Real-time onboard Hazard Detection Sensor is critical for identifying a safe landing site that is compatible to the lander. Allows potential final divert to landing site

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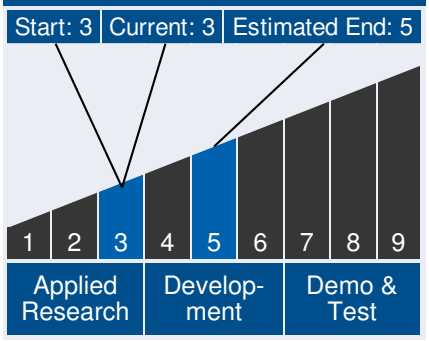
Technology Maturity



Management Team

Program Executive:
- Lanetra Tate

Program Manager:
- Mary Wusk

Project Manager:
- Thomas Cwik

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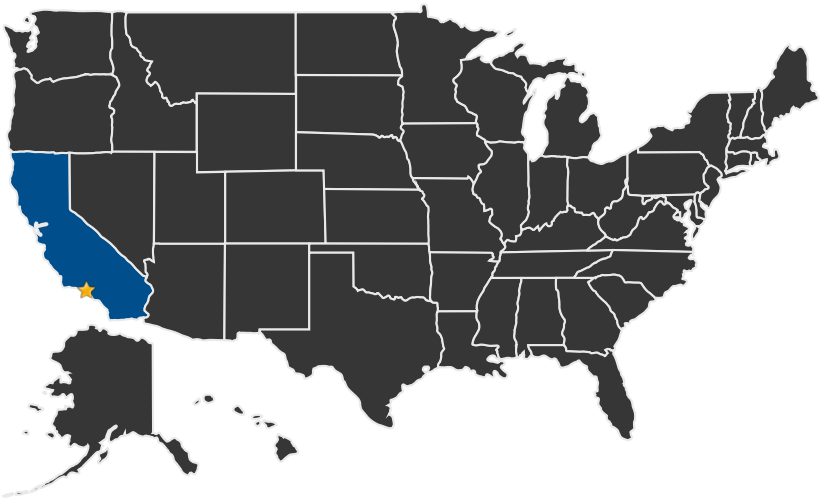
U.S. WORK LOCATIONS AND KEY PARTNERS



U.S. States With Work

Lead Center:
Jet Propulsion Laboratory

Technology Areas

Primary Technology Area:
Entry, Descent, and Landing Systems (TA 9)

DETAILS FOR TECHNOLOGY 1